



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,831	03/28/2000	Yoram Ofek	SYN 1756	5043
20787	7590	12/03/2003	EXAMINER	
			LEVITAN, DMITRY	
		ART UNIT		PAPER NUMBER
		2662		R

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/535,831	OFEK ET AL.	
	Examiner	Art Unit	
	Dmitry Levitan	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 21-52,54-67,82-86 and 89-91 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 21-52,54-67,82-86 and 89-91 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 08/18/03 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

Amendment, filed 8/18/2003 has been entered. Claims 21-52, 54-67, 82-86, 89-91 remain pending.

Specification

1. In light of Applicants amendment, objections to specification have been withdrawn.

Claim Rejections - 35 USC § 102

2. Claims 21-52, 54-67, 82-86 and 89-91 are rejected under 35 U.S.C. 102(e) as being anticipated by Ofek (US 6,272,131).

Regarding claims 21, 22, 37, 55, Ofek teaches an input interface system (id Fig. 1 and 12:15-28) for mapping asynchronous stream of data packets (id 14:52-61), each comprising a header portion and a payload portion (id Fig. 14), from at least one source to at least one destination (id Fig. 1), said system comprising:

A Common Time Reference divided into plurality of contiguous periodic super cycles each comprised of at least one contiguous time cycles each comprised of at least one contiguous time frame (id Fig. 3-6 and 11:27-60);

At least one synchronous virtual pipe having a subset of predefined time frames uniquely associated therewith (id Fig. 7 and 11:61-67, 12:1-14);

Plurality of queues wherein each queue is associated with a respective one of the SVPs (Queues on id Fig. 13 and 14:37-51);

Means for analyzing the header portion of the asynchronous data packets (routing controller 35 on id Fig. 12 and 14:38-52);

Art Unit: 2662

Means for storing the analyzed data packets in respective queues responsive to the means for analyzing (RAM of the Routing controller id 14:38-43);

A link coupled to the destination (links 41 on id Fig. 1); and

An SVP Forwarding Controller (Scheduling controller 45 on id Fig. 20 and 16:40-56), comprising a second memory for storing SVP schedules (RAM on id Fig. 20 and 16:53-56), and for forwarding (id 16:45-52), to the link, respective ones of the asynchronous data packets from respective ones of the queues responsive to the respective SVP schedule and the CTR (id 16:57-65).

Regarding claim 82, Ofek teaches dividing queues into CBR, VBR and BE queues (id Fig. 20);

Identifying, storing and forwarding CBR, VBR and BE packets in respective queues associated with a time frame (id 17:16-44).

Regarding claims 23-27, 43-46, 57-61, Ofek teaches a system with predefined, cyclical time frames, recurring in time cycle and a super cycle, starting at a point of time in the CTR (id 9:14-63 and Fig. 4-8 11:27-67, 12:1-14).

Regarding claim 28-31, 47, 48, 56, 62, Ofek teaches a system wherein the link is comprised of plurality of channels (id 8:10-36) and plurality (output ports 40 on id Fig. 1) of SVP Forwarding Controllers (scheduling controller 45 id 16:41-45), comprising set of queues (id Fig. 20), associated with channels (id Fig. 1), provides mapping of the data packets from the queues (id 16:45-67, 17:1-2) to the channels responsive to the SVP schedules and the CTR.

Regarding claims 32-34, 49, 63, 64, Ofek teaches a system with plurality of separate and independent streams of asynchronous data (id 10:9-16) and plurality of SVP Forwarding Controllers (controllers 45 of ports 40 id Fig. 1) each comprising a queue (Fig. 20).

Regarding claims 35, 36, 50-52, Ofek teaches a system with the means for analyzing provides analysis of streams of data packets and each stream is associated with one of the means for analyzing, comprising at least one queue (routing controller 35 on id Fig. 12, 13 and 10:17-39, 14:38-62).

Regarding claims 38-42, 83, 84, 89, Ofek teaches a system wherein queues are prioritized into CBR, VBR and BE, the means for analyzing are comprised of a controller and scheduling table and means for storing the packets in the queues (Packet scheduling and rescheduling controller 45A, forwarding table 45B, RAM 45C and queues B1-k, B-E on id Fig. 20 and 16:40-67, 17:1-44).

Regarding claim 54, Ofek teaches the CTR is UTC standard, and the super cycle is one UTC second, a predefined number of UTC seconds and a fraction of UTC second (id 20:1-15). Regarding claims 65-67, Ofek teaches a system comprising input ports, output ports, a switching fabric, an alignment subsystem comprising timing for each time frame set and means for scheduling the transfer of data packets during a time frame associated with the input port (id Fig. 3, 13 and 11:21-27, 14:33-51).

Regarding claims 85, 86, Ofek teaches a method wherein each SVP is associated with Pipe ID, explicitly contained in the header of IP packets, UDP header, MPLS label, ATM header (id 8:1-35, 10:9-38).

Regarding claims 90 and 91, Ofek teaches a method comprising inserting a delimiter between one of CBR and VBR, CBR and BE, VBR and CBR, VBR and BE, BE and CBR, BE and VBR data packets that are transmitted within same frames (id Fig. 22 and 17:21-44).

Response to Arguments

3. Applicant's arguments filed 08/18/03 have been fully considered but they are not persuasive.

On page 16, Applicant claims priority of application 09/120,636, filed July 22, 1998, to overcome the rejection.

Examiner believes that the rejection under 35 USC 102 is still proper, because the inventive entities of the patent and the present application are different. This fact also raises the question as to what the contribution of the additional inventor in this application is regarding the claimed invention.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 2662

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is 703-305-4384. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Dmitry Levitan
Patent Examiner.
11/24/03.


HASSEN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600